

CLAIMS

1. An objective lens drive unit comprising:

an objective lens;

a lens-supporting member for holding said objective lens;

5 a plurality of linear elastic supporting members each for supporting said lens-supporting member on an end side thereof;

a fixing member for supporting the other end side of each of said elastic supporting members; and

10 a drive means for driving said lens-supporting member in a tracking direction and a focus direction,

wherein each of said elastic supporting members is fixed on said lens-supporting member and said fixing member by bonding means, and

15 wherein an uneven face having a surface roughness allowing said bonding means to invade therein and harden is formed on at least the surface of said one end side and the surface of the other end side of each of said elastic supporting members.

2. The objective lens drive unit according to claim 1 wherein said uneven face is composed of plating layer whose surface is rough.

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3. The objective lens drive unit according to claim 1 wherein said uneven face is composed of plating layer on which a number of pin holes are formed.

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4. The objective lens drive unit according to claim 1 wherein said uneven face is composed by roughing the surface of said elastic supporting member by etching.

5. The objective lens drive unit according to claim 1 wherein said uneven face has a surface roughness of at least 0.09 μm .
6. The objective lens drive unit according to claim 1 wherein said
5 uneven face is formed during at least one of a plating process and an etching process for said elastic supporting member.
7. An optical pickup unit comprising an objective lens drive unit,
said objective lens drive unit including
10 an objective lens;
a lens-supporting member for holding said objective lens;
a plurality of linear elastic supporting members each for supporting said lens-supporting member on an end side thereof;
a fixing member for supporting the other end side of each of
15 said elastic supporting members; and
a drive means for driving said lens-supporting member in a tracking direction and a focus direction,
wherein each of said elastic supporting members is fixed on said lens-supporting member and said fixing member by bonding means, and
20 wherein an uneven face having a surface roughness allowing said bonding means to invade therein and harden is formed on at least the surface of said one end side and the surface of the other end side of each of said elastic supporting members.
8. The optical pickup unit according to claim 7 wherein said uneven
25 face is composed of plating layer whose surface is rough.
9. The optical pickup unit according to claim 7 wherein said uneven

face is composed of plating layer on which a number of pin holes are formed.

10. The optical pickup unit according to claim 7 wherein said uneven
5 face is composed by roughing the surface of said elastic supporting member by etching.

11. The objective lens drive unit according to claim 7 wherein said
uneven face has a surface roughness of at least $0.09\ \mu\text{m}$.

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12. The optical pickup unit according to claim 7 wherein said uneven face is formed during at least one of a plating process and an etching process for said elastic supporting member.

15 13. A disk drive unit comprising an optical pickup unit,
said optical pickup unit including:

an objective lens for irradiating beam spot to a recording medium;

a lens-supporting member for holding said objective lens;

20 a plurality of linear elastic supporting members each for
supporting said lens-supporting member on an end side thereof;

a fixing member for supporting the other end side of each of said elastic supporting members; and

25 a drive means for driving said lens-supporting member in a
tracking direction and a focus direction,

wherein each of said elastic supporting members is fixed on said lens-supporting member and said fixing member by bonding means,
and

wherein an uneven face having a surface roughness allowing said bonding means to invade therein and harden is formed on at least the surface of said one end side and the surface of the other end side of each of said elastic supporting members.

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14. The disk drive unit according to claim 13 wherein said uneven face is composed of plating layer whose surface is rough.

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15. The disk drive unit according to claim 13 wherein said uneven face is composed of plating layer on which a number of pin holes are formed.

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16. The disk drive unit according to claim 13 wherein said uneven face is composed by roughing the surface of said elastic supporting member by etching.

17. The disk drive unit according to claim 13 wherein said uneven face has a surface roughness of at least $0.09\ \mu\text{m}$.

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18. The disk drive unit according to claim 13 wherein said uneven face is formed during at least one of a plating process and an etching process for said elastic supporting member.